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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,311	05/11/2001	Atsushi Inagaki	1232-4713	5872

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EXAMINER	
MISLEH, JUSTIN P	

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/853,311	INAGAKI, ATSUSHI	
	Examiner	Art Unit	
	Justin P Misleh	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 - 36 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 - 36 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 11 May 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided**. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

More specifically, the abstract contains the legal phraseology "comprising".

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The Examiner recommends including the operating frequency aspect of the present invention in the title.

Drawings

3. The drawings are objected to because of a typographical error in figure 2. More specifically, Step S109, in figure 2, corresponds to a "warning" step; however, the step is spelled "worning", which appears to be a typographical error.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1 – 36** are rejected under 35 U.S.C. 102(e) as being anticipated by Saito. For the following rejections, please refer to the following: figures 1 – 4, 6, and 7 and columns 3 (lines 37 – 56), 4 (lines 23 – 36), 5 (lines 49 – 67), 6 (lines 1 – 22 and 61 – 67), 7 (lines 1 – 8, 23 – 33, 66, and 67), 8 (lines 1 – 23), 10 (lines 12 – 15), 11 (lines 14 – 27), 12 (lines 42 – 49 and 60 – 66), 13 (lines 28 – 35 and 45 – 49), 14 (lines 26 – 33, 66, and 67), and 15 (lines 1 – 13, 27 – 33, and 42 – 53).

6. For **Claim 1**, Saito discloses, at least, two selectable camera modes of operation that include: a record mode and a movie mode. The record mode is configured to capture an image (In CCD 10), perform basic necessary image signal processing (In Image Signal Processing 12), perform image compression (In Compression/Expansion 16), and record the compressed image data in the recording medium (20; by means of Record/Reproduction 18), all over the CPU bus (14). The movie mode is configured to capture an image (In CCD 10), perform basic necessary image signal processing (In Image Signal Processing 12), and perform basic reproduction signal processing (In Reproduction Signal Processing 24) so as to continuously provide image data to appear on the monitor (26), all over the image bus (22). According to the user's mode selection, as shown in figure 2, a Bus Switching Circuit (212) in the Image Signal Processing (12) is activated so as to output the image data to either the CPU bus (14) or the image bus (22). The Bus Switching Circuit (212) operates according to the table in figure 4. When a record mode is selected, the Bus Switching Circuit (212) turns on a buffer allowing

image data to access onto the CPU bus (14). When a movie mode is selected, the Bus Switching Circuit (212) turns the buffer to a hi-impedance state preventing image data from accessing the CPU bus (14) and allowing image data to access the image bus (22). Since when the movie mode is selected, image bus (22) access is allowed, the main controller (30), which is directly connected to the CPU bus (14), becomes idle (see column 6, lines 18 – 22). Thus, according to Saito it is possible to reduce the amount of information to be transferred via the CPU bus (14) during real-time movie mode operation; thereby allowing compression, image communication, and other processing using the general memory (36) connected to the CPU bus (14) to be performed without muting a picture appearing on the monitor (26). In summary, Saito discloses (column 15, lines 42 – 53), in the movie mode, image data are transferred from the image signal processing (12) to the image bus (22) and to the reproduction signal processing (24); therefore, "it is possible lower the operation clock frequency assigned to the main controller (30) or to interrupt the operation of the other circuitry, i.e., to control each section of the camera (1) to the sleep state or a stand-by or idle status"; thereby successfully reducing the power consumption of the entire camera (1).

In regards to the claim language, Saito discloses an image sensing apparatus (1), comprising:

an image sensor (10) that senses an image of a subject to obtain a sensed image;

an operating frequency setting device (Bus Switching Circuit 212 and main controller 30; see column 8, lines 1 – 12) that is capable of setting the operating frequency of said image sensing apparatus to at least any of a first operating frequency (The first operating frequency corresponds to the operating frequency of the main

controller 30 in any mode of play mode and record mode, wherein the main controller 30 and CPU bus 14 are in an active state, as exemplarily shown in figure 7) or a second operating frequency different from said first operating frequency (The second operating frequency corresponds to the operating frequency of the main controller 30 in the movie mode, wherein the main controller 30 and the CPU bus 14 are in an idle state, as shown in figure 6); and

a display unit (26) that is capable of electrically displaying the sensed image obtained by said image sensor (movie mode), the display unit (26) being capable of display operations at any of said first or second operating frequency (real-time movie mode) set by said operating frequency setting device (The image bus 22, as explained above, is operationally independent from the CPU bus 14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein image data is continuously displayed in both situations; see column 15, lines 1 – 13 and 27 – 33).

7. For **Claim 13**, the claim language requires a method for controlling the image sensing apparatus required by Claim 1. The rejection of Claim 1 fully encompasses the apparatus aspect and method aspect required by both claims. For details regarding Claim 13, please see the rejection of Claim 1. The claims depending from Claim 13 follow suit, as described below.

8. For **Claim 25**, the claim language requires a storage medium that stores a control program comprising code for controlling the image sensing apparatus required by Claim

1. Saito does not actually describe a storage medium and control program details; however, in column 6 (lines 61 – 67) and column 7 (lines 1 – 8), Saito gives evidence that a storage medium and control program details inherently exist. In other words, the camera (1), which is controlled by a RISC processor, is inoperable without a storage medium that stores a control program comprising code for controlling the camera. The rejection of Claim 1 fully encompasses the apparatus aspect and coded method aspect required by both claims. For details regarding Claim 25, please see the rejection of Claim 1. The claims depending from Claim 25 follow suit, as described below.

9. As for **Claims 2, 14, and 26**, Saito discloses, wherein said second operating frequency (main controller 30 state during movie mode is idle) is lower than said first operating frequency (main controller state during record mode is active) and said operating frequency setting device (main controller 30) sets said first operating frequency when said sensed image is recorded (see column 13, lines 18 – 35, and column 15, lines 1 – 13; when the main controller 30 is needed it pulls itself out of the second operating frequency and into the first operating frequency).

10. As for **Claims 5, 17, and 29**, Saito discloses, as stated in columns 1 (lines 30 – 46), 13 (lines 18 – 35), and 15 (lines 1 – 13), wherein said second operating frequency (main controller 30 state during movie mode is idle) is lower than said first operating frequency (main controller state during record mode is active) and said operating frequency setting device (main controller 30) sets said first operating frequency when photography is performed (As stated above photography is included in the record mode and also when the main controller 30 is needed it pulls itself out of the second operating frequency and into the first operating frequency).

11. As for **Claims 3, 6, 15, 18, 27, and 30**, Saito discloses, wherein said display unit (26) is capable of displaying the sensed image obtained from said image sensor (10) at any of said first or second operating frequency (real-time movie mode).

The image bus 22, as explained above, is operationally independent from the CPU bus 14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein image data is continuously displayed in both situations; see column 15 (lines 1 – 13 and 27 – 33).

12. As for **Claims 4, 7, 16, 19, 28, and 31**, Saito discloses, as stated in columns13 (lines 18 – 35) and 15 (lines 1 – 13), wherein said operating frequency setting device (main controller 30) switches between said first and second operating frequencies in a case where said display unit (26) is operating (real-time movie mode).

13. As for **Claims 8, 20, and 32**, Saito discloses, Saito discloses, wherein said display unit (26) is capable of displaying the sensed image obtained from said image sensor (10) at any of said first or second operating frequency (real-time movie mode).

The image bus 22, as explained above, is operationally independent from the CPU bus 14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein

image data is continuously displayed in both situations; see column 15 (lines 1 – 13 and 27 – 33).

14. As for **Claims 9, 21, and 33**, Saito discloses, Saito discloses, as stated in columns13 (lines 18 – 35) and 15 (lines 1 – 13), wherein said operating frequency setting device (main controller 30) switches between said first and second operating frequencies in a case where said display unit (26) is operating (real-time movie mode).

15. As for **Claims 10, 22, and 34**, Saito discloses, as stated in column 13 (lines 18 – 49), further comprising a photography triggering member ("shutter release button") for giving a command to start photography; and wherein said operating frequency setting device switches between said first and second operating frequencies in response to an operation of said photography triggering member ("main controller 30 may be ... adapted to cancel the sleep mode and execute the above pickup control when the operator presses the shutter release button halfway or touch the release button, in which case the controller 30 will setup the record mode").

16. As for **Claims 11, 23, and 35**, Saito discloses, as stated in column 7 (lines 47 – 65), further comprising a focusing device (TTL-AF) for performing a focus adjustment in response to an operation of said photography triggering member ("shutter release button halfway").

17. As for **Claims 12, 24, and 36**, Saito discloses, as stated in column 7 (lines 47 – 65), further comprising a metering device (TTL-AE) for performing a metering operation in response to an operation of said photography triggering member ("shutter release button halfway").

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following is a brief description of the cited prior art, as labeled on form PTO-892.

- **Prior Art B and C** each disclose various changes in the operational frequency of the image pickup device and/or image sensing apparatus, in response to user operation of the image sensing apparatus, e.g. mode selection.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:30 PM and on alternating Fridays from 7:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TUAN HO
PRIMARY EXAMINER

JPM
August 21, 2004